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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,010	07/10/2001	Lee A. Walker	922-140	7649

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EXAMINER	
HOSSAIN, TANIM M	

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,010	WALKER ET AL.	
	Examiner	Art Unit	
	Tanim Hossain	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 7/10/01 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 09292004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 12-15, and 17-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the procedure". There is insufficient antecedent basis for this limitation in the claim.

Claims 12-15, and 17-23 are rejected, as the claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. As an example, claim 15 contains run-on phrases that are grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10, 11, 13, 14, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sciacca (U.S. 6,760,761) in view of Kimball (U.S. 6,128,729).

As per claim 1, Sciacca teaches a method of checking configurations on a network, the method comprising the steps of: for at least one managed device on the network, accessing configuration information (column 8, line 55 – column 9, line 3); applying a series of interrogations to the configuration information relating to an aspect of configuration to determine whether the port and associated link conforms to at least one predetermined configuration criterion (column 8, line 55 – column 9, line 3; column 4, lines 52-66); and when the configuration does not conform, providing an indication of the non conformity that has been determined (column 4, lines 52-66). Sciacca does not specifically teach the specific inclusion of port and link information as configuration information. Kimball teaches the limitation where port and link information is obtained (Abstract; where the disabling of redundant ports constitutes the accessing of port and link configuration information). It would have been obvious to one of ordinary skill in the art at the time the invention to include this limitation, as taught by Kimball in the system of Sciacca, as both inventions are from the same field of endeavor, namely the automatic detection of configuration parameters. The motivation for combining teachings also lies in the fact that accessing port and link information as configuration information is well known in the art.

As per claim 2, Sciacca- Kimball teaches a method according to claim 1 including repeating the procedure for another port and respective link on the device (column 1, lines 35-38; where the multiple devices constitutes repetition as necessary).

As per claim 3, Sciacca- Kimball teaches a method according to claim 1 further including applying a plurality of series of interrogations to the port and link relating to different aspects of configuration (column 4, lines 52-66).

As per claim 4, Sciacca- Kimball teaches a method according to claim 1 in which the series of interrogations relates to one of duplex, trunk link, link speed, and resilient link configurations (column 2, lines 15-38; where the use of the variety of devices for configuration allows for these configurations, which renders the inclusion of the specific configurations obvious to one of ordinary skill in the art).

As per claim 5, Sciacca- Kimball teaches a method according to claim 1, in which the indication of the detected non-conformity includes a display of information on the configurations and of the change required to establish conformity (column 8, lines 46-60; column 4, lines 52-66; column 5, line 66 – column 6, line 2; where the display of such information is obvious).

As per claim 6, Sciacca- Kimball teaches a method according to claim 5, in which the non-conformity is one for which an automated modification is possible and an automated modification of the configuration to establish conformity is offered for selection (column 10, lines 22-30; column 8, lines 46-60).

As per claim 7, Sciacca- Kimball teaches a method according to claim 1, in which the link comprises a remote connection and the configuration information relates to the remote connection (column 2, lines 15-24).

As per claim 8, Sciacca- Kimball teaches a method according to claim 1, in which the configuration information relates to a property of an interconnecting material that comprises the

link (Sciacca: column 5, lines 3-15; where the link properties, speed, and type constitutes the interconnecting material).

As per claim 9, Sciacca- Kimball teaches a method according to claim 1, in which the accessing of the configuration information is implemented externally of the network (column 2, lines 15-25).

As per claim 10, Sciacca- Kimball teaches a method according to claim 1, in which the accessing of the configuration information is implemented in a device on the network (column 2, lines 15-25).

As per claim 11, Sciacca- Kimball teaches a method according to claim 1, in which the accessing of the configuration information is initiated remotely (column 2, lines 15-25).

As per claim 13, Sciacca- Kimball teaches a method according to claim 1, but does not specifically teach that, in the case of two ports capable of full duplex running at half duplex, providing an indication that the two ports are capable of full duplex. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as indicating capabilities of certain network components is well known in the art, most notably in the field of auto-negotiation between ports (see Johnson, U.S. Patent 6,434,716).

As per claim 14, Sciacca- Kimball teaches a method according to claim 1, but does not specifically teach the indication where one link is running at half duplex and the linked device is not a managed device, where the indication alerts of an inefficiency. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as Sciacca teaches the indication of incompatibility and inefficiency among connected devices. This is a specific example of Sciacca's teaching and is thus obvious.

Claim 24 is rejected on the same basis as claim 1, as it is a computer program for implementing the method of claim 1.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sciacca- Kimball in view of Christensen (U.S. 5,625,621).

As per claim 12, Sciacca- Kimball teaches a method according to claim 1 with an interrogation process deciphering whether network components are different, and if so, indicating a non-conformity, but does not specifically teach the interrogation discovering whether the two connecting ports are running different duplex modes, and if so, indicating a non-conformity. Christensen teaches a network system determining whether a LAN switch is running a half duplex mode or a full duplex mode (column 9, lines 35-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the determination of whether two ports are running different duplex modes to determine whether the two ports are in conformance, as taught by Christensen in the system of Sciacca- Kimball. The motivation for doing so lies in the fact that the Sciacca teaching already discusses using network connection characteristics as criteria for determining whether the network configuration is in conformance with the accepted configuration. The difference in duplex modes is another such network connection characteristic, and it would thus be obvious to include this as criteria to add further functionality to Sciacca's invention.

Claims 15-18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sciacca- Kimball in view of Wils (U.S. 6,754,173).

As per claim 15, Sciacca teaches a method according to claim 1, but does not specifically teach the case where it is determined whether links are trunk links, whether they are enabled, whether they have equal numbers at each end of the link, and whether all the ports are active, and if the answer is no to any of these criteria, an indication is given as such. Wils teaches this limitation (column 2, line 66 – column 3, line 31; where the discussion of detection and the indication of disconnection constitutes the ability to decipher whether the links are enabled as trunk links, whether they have equal numbers, and whether they are active.). It would have been obvious to one of ordinary skill in the art to include the ability to determine the existence and state of the trunk links, as taught by Wils, in the system of Sciacca- Kimball. There exists an obvious need to determine whether network configurations are compatible or not, and the inclusion of the ability to determine information about trunk links falls into this category. All teachings are from the same field of endeavor, namely the efficient configuration of networks and the streamlining of network services. Indication of this characteristic is obvious and well known to one of ordinary skill in the art. The motivation to combine lies in the fact that there exists a need for the differences between links to be indicated so that further functionality is added, such that multiple network devices can be used with this invention.

As per claim 16, Sciacca- Kimball-Wils teaches a method according to claim 1 in which, if the interrogations indicate that there are any free ports on both devices that could be used as part of a trunk line, an indication is given (Wils: column 2, line 66 – column 3, line 31). All discussions of obviousness are discussed in the treatment of claim 15.

As per claim 17, Sciacca- Kimball-Wils teaches a method according to claim 1 in which the interrogation determine whether the link is a trunk link, and when the link is not a trunk link,

the interrogations determine whether both devices are trunk link capable and whether there are free ports on each device and if so an indication is given (Wils: columns 3-6; where the determination whether the links are trunk links or trunk link capable is obvious by nature of the invention.) Motivations to combine teachings are discussed in the treatment of claim 15.

As per claim 18, Sciacca-Kimball-Wils teaches a method according to claim 1 but does not specifically teach an indication of a misconfiguration if the link is determined to be an unmanaged trunk link. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as a misconfiguration indication is well known in the art. The determination of a trunk link, managed or unmanaged has been discussed by Wils. Motivations to combine teachings are discussed in the treatment of claim 15.

As per claim 22, Sciacca-Kimball -Wils teaches a method according to claim 1, but does not specifically teach the determination of a resilient link, and if that is true, the determination of whether they form a resilient pair, and if that is true, giving the indication of a misconfiguration. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation in view of Wils as trunks becoming disconnected constitute resilient links, and with disconnected links, a misconfiguration obviously takes place. Offering the indication is well known in the art.

As per claim 23, Sciacca-Kimball -Wils teaches a method according to claim 1, but does not specifically teach the case where the standby port is on the same unit as the main port and if so whether the device contains multiple units, and if so an indication to move either the main port or the standby port to another unit is given. It would have been obvious to one of ordinary

skill in the art at the time of the invention to include this limitation in view of Wils, as moving ports to facilitate configuration is taught, and is thus well known in the art.

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sciacca-Kimball in view of Johnson.

As per claim 19, Sciacca-Kimball teaches a method according to claim 1, but does not specifically teach the interrogations to decipher whether auto-negotiation is on, on both ends of the link, and if it is running at maximum speed, and if not, an indication is given to check the physical connection between the two devices for compatibility. Johnson teaches the discovery of auto-negotiation on both ends and a method of checking whether it is being run at full speed (column 2, line 44 – column 3, line 9). It would have been obvious to include this limitation as taught by Johnson in the system of Sciacca-Kimball. The motivation for doing so lies in the fact that all teachings are from the same field of endeavor, namely the efficient configuration of networks. The check for compatibility and its indication is well known in the art and would have been obvious, in light of the fact that Johnson teaches the deciphering of the network speed. In any situation where that occurs, there exist methods to test for compatibility in the case of a link not performing at its peak.

As per claim 20, Sciacca-Kimball -Johnson teaches a method according to claim 1 but does not specifically teach the determination of whether the link speed is set at less than maximum but is running optimally, and if so, providing an option to turn on auto-negotiation. It would have been obvious to one of ordinary skill in the art to include this limitation specifically, in view of Johnson's invention. The ability to set the link speed to less than maximum but

optimal is well known in the art, and providing the indication to turn on auto-negotiation in view of this is also well known in the art. The motivation for including this teaching lies in the fact that a configuration change to auto-negotiation would allow for optimizing the network connection without user intervention, which would facilitate efficiency.

As per claim 21, Sciacca-Kimball -Johnson teaches a method according to claim 1 but does not specifically teach, during auto-negotiation, determining whether a device is unmanaged, but the link is running at full speed, and in turn, offering an upgrade for the unmanaged device. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as it is well known to offer upgrades to components that are not currently compatible. The fact that this must occur during auto-negotiation is a design choice and can be applied outside of this.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Hendel (U.S. 6,049,528) teaches the trunking of ethernet compatible networks.

b. Burgess (U.S. 5,758,071) teaches a method and system for tracking the configuration of a computer coupled to a computer network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 703/605-1228 until

October 15, after which, it becomes 571/272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703/305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703/872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tanim Hossain
Patent Examiner
Art Unit 2141

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER